



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,024	11/14/2001	Hiroyuki Tadano	70904/56,692	1178
21874	7590	10/06/2005	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			PSITOS, ARISTOTELIS M	
			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/994,024	Applicant(s) TADANO ET AL.	
	Examiner Aristotelis M. Psitos	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2653

Applicants' response of 7/12/05 has been considered with the following results.

Specification

The amendment to the title of the invention is greatly appreciated.

Claim Objections

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23-29 and 33-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Independent claims 23 and 33, recite a particular formulation of the appropriate error signal, each of which relies upon a coefficient k_1 , or k_2 . However, neither coefficient is sufficiently disclosed, nor claimed.

The dependent claims fall with their respective parent claim because they do not clarify the above.

Response to Arguments

Applicant's arguments filed 7/12/05 have been fully considered but they are not persuasive.

Although k_1 and k_2 are defined in the specification as constants, and as argued that is true, nevertheless no such limitation is required/define by the claims. Appropriate correction is respectfully required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759

Art Unit: 2653

F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 21,22, 30,31 and 32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1/8/9/10/11 of U.S. Patent No. 6822209 further in view of Yoshida. Although the conflicting claims are not identical, they are not patentably distinct from each other because: see below analysis.

Independent claims 21, and 31 are drawn to apparatus while claim 30 is drawn to a method.

With respect to the apparatus claims:

The following analysis is made:

US 6,822,209

31. An optical pick-up device comprising :

claim 1: line 1

a light source;

line 2;

a focusing optical system for focusing a light beam
emitted from said light source onto an optical recording
medium;

lines 3-5, wherein the examiner interprets
the objective lens as recited in these lines
as the focusing system;

light beam separation means for separating a light
beam reflected from said optical recording medium and
passing through said focusing optical system, into a
first light beam which includes a light axis of the light
beam and a second light beam which does not include the

lines 6-16; wherein the inner most
light beam (inner circumference) includes
the light beam axis (as defined by applicant)
and the second light beam is either the
light beam from the second circle or

Art Unit: 2653

light axis of the light beam;

third circle.

spherical aberration detection means for detecting the spherical aberration in accordance with at least one of focus positions of the two light beams separated by said light beam separation means; and

see Yoshida – aberration detection capability as further define in claim 1 thereof,

spherical aberration correction means for correcting a spherical aberration detection means, including:

see above Yoshida/ aberration correction capability, as further defined in claim 1

said light beam separation means including a first region for separating the first light beam, and a second region for separating the second light beam, and

see Yoshida - especially claim 2

said first and second regions being separated by a boundary, and said boundary being formed as a circle or an arc centered on the light axis of the light beam, having a radius virtually 70 percent of an effective radius of the light beam.

see claim 9 of 6822209

In the above analysis, it is noted that alternatively the double patenting can be formulated as over claim 2 of Yoshida 6498330 further in view of 6822209 – the limitations with respect to the radius limitation. It is noted that in either event, the present claim does not patentable distinguish thereover.

With respect to claims 32 and 21, the hologram is further defined in claim 2 of 6498330.

Art Unit: 2653

With respect to method claim 30, such is an obvious (method) variant over the apparatus limitations as analyzed above.

With respect to claim 21, the claimed "dual lens objective" is considered the optical system of claims 2/1 in 6498339.

2. Claims 23 - 29 and 33 - 39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of 6822209 in view of claim 11/10/9/8/1 of U.S. Patent No. 6822209 in view of Yoshida -6498330.

The following analysis is made:

Claim 23:

An aberration detection device in which a light beam emitted from a light source is focused on an information recording layer of an optical recording medium through a dual lens objective lens constituted by a first lens element and a second lens element, and in which a light beam reflected from the information recording layer is incident on light beam separation means through the dual lens objective lens so as to separate the light beam into a first light beam, which includes a light axis of the light beam, and a second bema, which does not include the light axis of the light beam, and thereby detect a spherical aberration of the dual lens objective lens,

Said aberration detection device comprising inherently present in Yoshida

Art Unit: 2653

a first focus error detection section for detecting focus position deviation of the first light beam from the first light beam, and outputting signal; and

claim 4 item (b)

see below.

a second focus error detection section for detecting focus position deviation of the second light beam from second light beam, and outputting second error first error signal,

claim 11

wherein said focus position deviation amount detection means obtains a spherical aberration error signal SAES showing an amount of the spherical aberration of said focusing optical system, from an equation:

claim 10: line 15

$$SAES = F1 - FES \times k1$$
 (k1: a coefficient),

where F1 is the first error signal, F2 is the second error signal, and FES, which is focus error signal

showing an amount a focus error of said focusing optical system, + F2, and

said correction means corrects the aberration in accordance with the spherical error signal SAES obtained by said focus position deviation amount detection means.

Art Unit: 2653

As analyzed above, claim 23 is different in scope of claims 1/8/9/10/11 in the above patent. Stated differently, claim 21 includes the limitations as stated above from claims 1/8/9/10/11 plus the additional limitation as recited in claim 4 in the above patent and further pursuing the dual lens aberration detection/correction of the Yoshida patent.

Since claim 10 recites the generation F1 (see line 15), it would have been obvious to include the limitation of claim 4, the source of the F1 signal, so as to provide adequate support for the generation of the final resultant SAES signal recited in line 15 of claim 10.

Hence the examiner considers the present claim 21 as an obvious variant/scope of the subject matter already patented subject matter of the combined patents.

With respect to claims 24-29, such is considered present in the above claims, i.e., the first and second regions, boundary there between (claim 24), the radial limitation (claim 25), claim 26 – by the above noted claim 4 of the base patent of 6822209, claims 27,28 inherently present in claim 4 and or 6 of 6822209.

With respect to claim 33, such parallels claims 11/10/9/8/1 of the above noted patent 6822209, see the previous analysis as presented in paragraph 4 in the previous OA. This analysis is not repeated.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2653

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

A handwritten signature in black ink, appearing to be 'APsitos', with a long, sweeping horizontal line extending from the bottom of the signature.

amp